9: Evans K-5 (ca. 1940) 1942
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CHAPTER III.

THE LANDSCAPE.

THE BEGINNINGS.

133 The landscape of a long inhabited country like Ireland is
137 in large measure the work of man, whose farms, fields and
311 fences are the result of many centuries of sustained effort. One might think of the wild thorn hedges and the piled stone "ditches" as mere sample remnants of woods and stones that once covered the face of the land. The extent of the change brought about may be judged by the fact that from being a land clothed with forest from the sea-coasts high up into the mountains, Ireland to-day is the least wooded country in Europe. In this work of forest destruction man has been assisted by his domestic animals and by changes of climate which have resulted in the accumulation of bogland. It is one of the paradoxes of Ireland that while the main lines of her mountains took shape in the remote ages of geological time, wide areas are dominated by the peat deposits which have been formed in the few thousand years that have elapsed since the ice age. The contrast of age is accentuated by those of colour and relief, for far across the level brown bogs rise blue in the distance some of the oldest mountains in Europe. In the middle distance, completing the picture, will be the green hills of the eskers.

137 The heart of the island, the Irish midlands, is a veritable Black Country, black with peat, not with the grime of coal-fields. Here in the boglands there are twelve contiguous

[p.23]
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9: Evans K-5 (ca. 1940) 1942
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137 counties, none of which has any settlement of 5,000 people. Irish peat, or turf as it is properly called, covers an area of some 3 million acres and has an average depth, in the central plain, of 19 feet. Shallower deposits are very extensive in the mountains, particularly along the western seaboard from Kerry round to Inishowen. Apart from their economic [372] importance—it is estimated that they form the sole fuel supply of two-thirds of the farming population (see Chapter 15)—the peats are of great interest to scientists, and during recent years an intensive investigation, under Danish leadership, has solved many problems concerning their origin and growth.

While bogs accumulate most readily in imperfectly drained lowlands, the heavy precipitation of the mountains is the main factor in their wide distribution. The south coast, with its excellent drainage, and the dry east coast, with the exception of the Wicklows, are largely peat-free. So are many areas of limestone which, with its cracks and joints, swallows the heaviest rains. And the eskers, though they may pond the drainage and thus cause water-logging and bog formation, are themselves free of peat. Regions favourable for human settlement are thus closely related to the distribution of peat, but the control is not merely negative since access to supplies of turf is often an important consideration.

For the scientist the value of turf-bogs lies in the fact that they preserve not only wood, twigs and the seeds and fruits of plants but even the minute grains of pollen, so that as they accumulate they write their own record, a record which the pollen-analyst can read. Moreover the phases of vegetation and climate thus chronicled can be correlated with the story of Irishmen who, careless or forgetful, have left behind at different levels objects of stone, metal or wood which the archæologist can use as clues in his detective work. In this way a sequence of climate, vegetation and human industries has been worked out, and we now have an outline of the whole story from the time when the first layers of lake clay were laid down in hollows of the surface while the ice still lingered in the mountain corries: they contain remains of arctic willow and the bones of the giant deer.

9: Evans K-5 (ca. 1940) 1942
ER6 Rural Irish ER6
Antrim

Plate I

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TREE ROOTS IN BOG FACE

ARMOY, CO. ANTRIM

[facing p. 24]

9: Evans K-5 (ca. 1940) 1942
ER6 Rural Irish ER6

• 137 Birch and hazel are the next vegetation recorded, then the pine spread rapidly to give way to oak and alder as the climate grew warmer. The oldest layers of turf in the deep bogs grew round the stumps of this oak forest, following the sinking of the land and the consequent bad drainage accompanying a stormy period which lasted from about 5000 to 2500 years B.C. To this climatic phase the term "Atlantic" is applied. There followed a warm dry period, called the sub-Boreal, which came to an end about the middle of the last millennium B.C.; it was during this phase that the Irish forests reached their greatest development, when oak, birch, alder, hazel and pine spread right to the western coasts and high up the mountain sides. It is estimated that the rainfall in the west was only half its present quantity and that the westerly winds were weak. When the storms returned the climate became cooler and even wetter than it is to-day, and during this "sub-Atlantic" period the western forests were submerged in extensive bogs to give the landscape its familiar barren appearance. Everywhere this dark age of storms, from about 500 B.C. to 100 B.C., was a time of maximum peat formation, layer upon layer of spongy vegetation, cotton grass, bog rush and sphagnum moss, accumulating in the hollows of the plain and on the mountain slopes. Thereafter there have been fluctuations when pine forests spread repeatedly on dried bog surfaces only to be swamped in succeeding wet phases, and in the end the pines disappeared from Ireland, leaving their resinous bog timber as a gift from the past to the treeless present. Not only timber but all organic matter such as bone, leather and even textiles and human bodies are wonderfully preserved by bog acid. Pl. 1.

172 Archæology tells us that man[1] first crossed the narrow seas from Scotland when the land stood higher before the "Atlantic" submergence. Hemmed in by the forest he clung to the beaches under the flint-bearing chalk cliffs of

[1] "Mesolithic" man. The term (Middle Stone Age) embraces the period from *c.* 7000-2500 B.C. falling between the Palæolithic (Old Stone) and the Neolithic (New Stone) Ages. Man's first appearance in Ireland is probably to be dated about 5000 B.C.

9: Evans K-5 (ca. 1940) 1942
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CHAPTER V.

WOODLANDS, FIELDS, FENCES AND GATES.

We have seen that the Irish landscape, in ancient times very well wooded, is now one of the most treeless in Europe, and we have shown how changes of climate as well as the depredations of livestock made great inroads into the forests. In later centuries many woodlands were destroyed by the English for strategic reasons, while the demands of ship-builders, of charcoal burners, tanners and stave-makers reduced the oakwoods to insignificant proportions. Poor scrub growth was in many areas all that was left. "An oak, an ash, or an elm," wrote Arthur Young of Mitchelstown in Co. Cork, "is almost as great a rarity as an olive, an orange or a mulberry." Ash remains the commonest tree, especially on the limestone of the Central Plain, despite the fondness of cattle for its leaves. We know that its valuable wood was used from the Bronze Age for handles and spear-shafts, and in the Pale it was insisted that "every husbandman having a plough shall set by the year twelve ashes in the ditches and closes of his farm." In the words of Evelyn: "It serves the soldier, the carpenter, the wheelwright, cartwright, cooper, turner and thatcher . . . from the pike, spear and bow to the plough."

137 ●

Acorns and hazel nuts were often used as a source of food before the coming of the potato, and almost every tree had its particular uses in a society living on its own resources and

[262]

[p. 39]

9: Evans K-5 (ca. 1940) 1942
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bound by innumerable ties to a countryside richer and fuller than that of to-day. Thus birch, rowan, hazel, thorn, sally and holly all had their special purposes, and yew was in great demand for croziers and shrines. So we might go on down to the humblest lichen (for crottle dye) and the seaweed (Chapter 16). Bog timber, oak and "fir," had many uses—for furniture and implements, for roofs, gates, slide-cars and boat-timber as well as for fir ropes and lighting "splits." Superstitious customs are associated with several of the native trees, especially the rowan, the ash, hazel and whitethorn (Chap. 18).

Sycamore and beech, neither of them native to Ireland, have been extensively planted in recent centuries and grow so well that many have assumed them to be indigenous. The beech loves the well-drained moraines, while the sycamore, one of the few trees which will stand up to the full force of the salt-laden winds, is planted in coastal districts for the shelter it provides: behind its dense summer foliage many a low cabin lies hidden. Its white easily-worked timber is sought by the wood-turner. Formerly the beetling engines of the linen country made a demand for beech and sycamore—the former for the beaters and the latter for the great beam. On steep hillsides which man has been unable to utilize one may still see patches of what may be regarded as wild scrub, a tangle of hazel, ash, black and white thorn, or birch, rowan and alder; but apart from the high-walled demesnes where giant trees are allowed to grow old and rot, the Irish landscape is singularly bare of timber. Visitors from England will notice the poor development of hedgerow trees except for the ash of Co. Meath. This must be attributed largely to the fact that hedge trees have to grow in raised banks or "ditches," as they are called. Hedges and trees are very rarely planted on the level, for the ditch-tradition is older than the hedge. To quote Young once more: "I never saw a single capital tree growing on these banks." But there is some compensation, in autumn, in the wealth of blackberries which they produce (Fig. 10).

Travellers of the early 19th century constantly refer to landscapes without a single tree or shrub or any trace of

9: Evans K-5 (ca. 1940) 1942
ER6 Rural Irish ER6

hedgerows. It is hard to realize that the close-set pattern of hedged or walled fields which now distinguishes so much of the countryside is for the most part only a century or so old. In many cases it can be shown that the fields and fences were laid out within the last hundred years, following the break-up of the rundale village system and the re-distribution of the land (Chapter 6). In the eastern lowlands, where English influence has long been at work, the field pattern and hedgerows are no doubt much older, but in general the small cultivated patches were separated by mere balks or waste strips, varying from one to ten feet in width. Stones from the fields, hand-picked or removed with crow-bar and slipe (Chapter 12) were dumped on the balks or, more frequently, piled into " cairns " in the middle of the fields. Such stone-heaps are often found accompanying prehistoric field-systems, for example in Jutland.

Fig. 10.

Stone walls or high earthen fences surrounded the house-clusters and enclosed each group of open fields, separating them from the common grazing land which lay outside and stretched away to the " head-ditch " on the mountain. As the rundale holdings gave way to individual farms the land was re-divided, the old ditches planted with whitethorn and new ditches, also set with thorn, were constructed—a process which was being actively carried out during the first half of the 19th century. One result of the scattering of the farms was the appearance of the long strip or " ladder farms," the cross hedges of the strip resembling the rungs of a ladder.

The oldest fences, then, are the protective banks around farms which occupy old village sites—a survival no doubt of the rings around the ancient raths—and the march-dykes or divisions between townlands. The varied vegetation on these older banks betrays them just as it does the pre-enclosure hedgerows in England: their massive tumbled ruins are overgrown with whins, blackthorn, sally, ash and bramble. There are, however, still older forgotten divisions on the hillsides dating from various prehistoric periods; some have

9: Evans K-5 (ca. 1940) 1942
ER6 Rural Irish ER6

172 311 351 been discovered under many feet of peat. Several types can be recognized, for example those with upright stones at intervals, which are sometimes left as "standing stones" after the intervening walls have been removed. Old field fences at Cush, Co. Limerick, claimed to be contemporary with raths of the late Bronze Age and "essentially similar to those built by an Irish farmer of to-day" have been described by Professor O'Riordain. This appears to be a striking example of continuity, for the fences are closely followed by existing field-boundaries. Since they lie some 800 ft. above sea-level they do not invalidate the general picture I shall draw in the following chapter, but it is clear that much more work on the lines followed at Cush is required.

351 314 137 [231] Hedges of whins (that is, gorse or furze) about the farmstead are much prized not only for the shelter they afford to stock—they are dense and do not drip—but because they form an admirable clothes line on washing day and a ready source of kindling wood. Formerly the young whin shoots were crushed and fed to horses. The heavy wooden maul and stone block used in the process may still be seen occasionally. It would require years of enquiry and observation to describe and classify the types of sod ("scraw") earth and stone fences which now parcel out the Irish soil into its patchwork of small fields. One may easily recognize the sod ditches of the rich grazing lands of Meath, with their tall thorn hedges and ash trees giving shelter to the cattle, the well-built dry-stone walls of the granite mountain slopes which vainly seek to stop the black-faced sheep, and the loose lace-like walls precariously constructed out of rough boulders in the morainic hills.

351 311 137 In the wind-swept mountains and along the coasts the ditches are hedgeless, carrying only a tangle of heather or whins and an occasional stunted tree, but throughout the lowlands the prevailing type of fence is a stone-faced bank of sods, in the side of which quick-thorn is planted (Fig. 10). These are cut back ruthlessly at longish intervals and are never pleached in the English way, so that the hedge is full of gaps. Occasion-

9: Evans K-5 (ca. 1940) 1942
ER6 Rural Irish ER6

ally one comes across very wide ditches of this type with a double hedge and paths or even cart-tracks in between, for example in Co. Limerick. In Rathlin Island the only hedge material that seems to escape the ravages of goats is the balsam poplar. Another plant of New World origin, born in Scotland of South American parents, is the Fuchsia, which runs riot along the coasts. Basket willows and wild "black sallies" for creels are sometimes grown—the latter has the advantage that it is not cropped by cattle.

The scarcity of good oak timber in a country once famed for its oaks—notice the frequency of the element "derry" in townland names—goes far to explain the prevalence of iron field-gates, which are hung on stout pillars of built stone. The newcomer to Ireland cannot fail to be struck by the massive gateposts along the roadsides and about the farm premises. In many districts they are whitewashed annually, and since they often assume proportions out of all relation to their function they are unnaturally conspicuous in a landscape bare of heavy timber. In parts of Ulster, for instance, they are such a characteristic feature of the countryside that it is difficult to imagine it without their cheering twinned greeting. Yet most of them must have been erected within the last century or so: writers of Irish travels before that time frequently comment on the absence of gates, for which in fact there was very limited need so long as the rundale system of farming persisted (Chapter 6). In the small village-communities of the west where the old scheme still prevails the gaps in the fences that surround the open field are closed with jagged root-stumps dragged from the bogs, or with a few thorn bushes. Sampson, writing of Co. Derry in 1814, states that gates were almost unknown except near towns, and that a common substitute was a hay-rope strung with thorns—an interesting rustic forerunner of the hated barbed wire.

Gate pillars and stiles

Fig. 11.

It might appear from the association of built piers with landlords' residences in Donegal that settlers introduced them to Ireland, but I am far from convinced that this is the

10: Browne D-5 (1893) 1894
ER6 Rural Irish ER6
Inishbofin

132 washed up on them; at least four of these are now in Inishbofin, and large quantities of drift of various kinds are thrown up on the shores from time to time.

137 The botany and zoology of the islands is outside of the scope of the present Paper, but a few words of general description may help to make the picture of the place more complete.

Here, as elsewhere, on our western coast, there is a tradition that the islands were at one time well wooded; and this is corroborated by the occasional discovery of tree-trunks in the bogs. At the present day, though under the influence of the warm, moist climate, other vegetation flourishes, trees of any sort cannot be got to grow, and all attempts to rear them have hitherto been failures, as the strong winds quickly destroyed them. Even in the most sheltered spots bushes will hardly grow, and there are not a dozen of five feet in height to be found in the islands.

136 Large numbers of sea-birds nest on the rocky islets round the coasts; pigeons in large numbers inhabit the caves of Inishshark, and, until within a few years ago, eagles used regularly to nest on a high pinnacle of rock, known as the Boughal, in the channel between the islands. Rabbits and rats are both very plentiful; but hares, bats, weasels, and frogs are not found on either island.

[821] Around the coast, porpoises, sea-otters, and seals (which latter are looked upon as forerunners of stormy weather when they appear) are often seen, and the "sun-fish" (*Selache maxima*, the great basking shark) appears usually about the end of March; it leaves nearly always before the end of June, and was until a few years ago regularly fished for.

III.—Anthropography.

125 1. *Methods.*—These do not require any very extended notice, being practically the same as those employed last year, and described in the report on the Aran investigation. A few changes were made, consisting mainly in the substitution of measurements and instruments shown by experience to be needed, for some which had proved unnecessary, and the use of the new observation form provisionally adopted by the Irish Sub-Committee for the Ethnographic Survey of the British Association. This form, though not perfect, proved to be of much value for field work as, owing to its arrangement, observations can be made with much greater rapidity than is possible by the old system; and the chance of omitting any important point is almost entirely avoided. The economy of time alone is a point of much im-

11: Browne D-5 (1894) 1895
ER6 Rural Irish ER6
Kilmore

extreme north point of the peninsula. Off this part of the coast lies Eagle Island, high and rocky in coast and surface, and a lighthouse-station. From Frenchport (or rather Annagh Head, its southern boundary) southward, the coast is sandy beach, shingle, and low rocks, and is backed to a large extent by rolling ranges of sandhills. Off this part of the coast lie Iniskea and Duvillaun, having a sandy or rocky shore, and a surface of no great elevation. The eastern shore along Blacksod Bay and Broadhaven is sheltered and low.

The surface of the Mullet does not reach any very great elevation, the highest point in the northern part being 410 feet above sea level, and the rounded granite hill of Tarmon, in the extreme south, 369 feet. It is much diversified, a good deal of it being fertile land, especially on the east side, but in the north part there is a good deal of bog and moor, and in the south and west rolling sandhills barely held in check by bent. In some of the narrower portions a fertile belt lies between two sandy ones.

The district of Portacloy is a wild mountainous region, with a coast of precipitous cliffs of great height, and riddled with caves. Benwee Head, which rises above the sea to the height of 1000 feet, is just outside the mouth of the deep narrow inlet which forms the harbour. The surface of this part of the district is very wild, and consists largely of bog and mountain. The climate is very mild, frost and snow being of infrequent occurrence and not lasting for long, but the rains are heavy and almost constant during the greater part of the year, and storms are frequent and severe.

Vegetation flourishes well, but, owing to the storms, trees are very few and only grow in sheltered localities.

The whole district is largely cut off from the outer world by the wide stretch of wild and sparsely peopled country through which the mail road from Ballina runs.[1]

III.—ANTHROPOGRAPHY.

1. *Methods.*—The methods employed did not differ to any great extent from those made use of on the two previous occasions. A few

[1] I am indebted to Mr. G. H. Kinahan, M.R.I.A., for the following note on the geology of the Mullet:—The south rough portion is granite, while the north rough portion is in part Archæan (*query, the equivalent of the Sutherland Algonkian rocks* that *have been called Old Bay*), and in part of Archæan quartzite (query, the equivalents of the Scotch Torridan Sandstone); while the central portion is occupied by schists of an uncertain age that lie unconformably on the Archæan rock to the northward.

167 657 landscape combined with financial help of such varied forms that one may see the welfare state in action. Inishbofin, four miles beyond the coast of Connemara [131] (10° 10′ W. to 10° 15′ W.), is separated by a strait almost one mile wide from the nearest inhabited island, Inishark. Some of the neighboring 311 small uninhabited islands are useful sheep pastures and others merely reefs 132 dangerous to shipping. In calm weather these islands rise above deep clear waters, but in storms Atlantic waves send spray to a height of 300 feet and more[5] and a dangerous swell sweeps through intricate channels. The inhabitants, farmers and farmer-fishermen are at the mercy of the weather. In 1954 the dry spring resulted in a short growth of oats and barley straw and a feeble growth of potatoes; the fishermen's lobster pots were swept out to sea, replaced and then swept out again; and the hookers could not be taken out in waters always dangerous but vastly more so when the weather consists of an apparently endless series of deep depressions.

505 Isolation is a major problem, but on four days a week in summer and three days a week in winter a hooker runs from the pier at Cleggan to the island, where it is rarely able to berth at the pier, so that all passengers and goods must be put over the side into a curragh and rowed ashore. In winter the island may be storm-bound for as much as a fortnight at a time, and almost [261] every household has a bag of meal kept for such an emergency. Special arrangements have to be made for the shipment of cattle; fish can be taken for sale to the mainland in rowing boats only during favorable weather; and no eggs are sold owing to transport problems

[137] [5] On the cliffs of the island the vegetation is halophytic and consists generally of a low sward of seapink (*Psamma maritima*).

[p. 203(A)]

13:Evans K-5 (ca. 1940) 1957
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II

FROM FOREST TO FARMLAND

THE tools and traits we are describing in this book have persisted through the centuries because of their close adaptation to the Irish environment, physical and social. They have gathered around them, in that environment, associations of usage and ritual without which they are meaningless, so that transplanted into another land they would be museum-pieces, as indeed they are rapidly becoming in many parts of Ireland. To understand them, therefore, we should consider them not in isolation but as part and parcel of a particular environment. To a large extent a culture owes its specific peculiarities to its geographical setting, and that is why our first chapters will be concerned with the face of the land and with the fields, farms and houses in which generations of Irish countryfolk have lived and worked.

It was from a forest environment that the cultural landscape slowly emerged. The destruction of the native forests was virtually complete by the seventeenth century. Thereafter constructional timber had to be imported, and the rural population turned to the fossil oak and pine of the bogs. In the eighteenth century landlords planted their lowland demesnes with exotic species of trees, but only in our own day, under government schemes of reafforestation, are the hill lands here and there being planted and abandoned fields being put back into forest. With the passing of the oak forests a wealth of woodcraft and tree lore perished and a wide range of skills declined, of which we get tantalizing glimpses from archaeological discoveries and legendary tales. Instead of the almost unbroken forest cover which once existed a 'closed association' of farms and fenced fields

13:Evans K-5 (ca. 1940) 1957
ER6 Rural Irish ER6

137 [824] now stretches from coast to coast. So much of the scene is fashioned by man that it requires an effort of the imagination as well as the findings of scientific research to picture the landscape as it was before his coming. Palaeo-botanists, from their studies of plant-remains and pollen-grains preserved in the peats (Chapter XIV), are slowly reconstructing the post-glacial succession of forests as arctic willow, birch, hazel, pine, alder and oak spread in turn over the face of the land. The dwarf vegetation of the early post-glacial period, with its scattered birchwoods, was too thin to form peat, but with the warmer climate of the Boreal phase (beginning about 7000 B.C.) pine and hazel, followed by oak and elm, spread across the country, and both fen-peat and wood-peat began to form in the undrained hollows of the lowlands. The growth of forest and peats was accelerated as the warm seas of the succeeding Atlantic period flooded the coasts at a time of rising sea-level, between 5000 and 2500 B.C. During this phase the alder flourished and the high humidity brought the rapid growth of sphagnum moss on the bogs.

It was during the following sub-Boreal period (2500–500 B.C.) that the Irish forests reached their greatest development, covering even the exposed seaward slopes of the western mountains where today not a single tree can be found growing. During this period, among the thinning forests of rocky hillslopes, man made his first clearings for cultivation and turned the mountain winds to profit in drying and harvesting his crops.

133 Thus the distribution of mountain masses gives a clue to the nuclear regions of Irish civilization, though it should be noticed that there are parts of the Central Lowland where thin dry gravel or limestone soils gave a more kindly foothold. As compared with the broad upland masses of Great Britain, the mountains of Ireland are broken into many fragments which lie scattered around the coasts. They fall, however, into four major divisions which are broadly distinguished by age and structure: those of the north (Ulster) the west (Connacht) the south-west (Munster) and the south-east (Leinster) (Fig. 2).

Geologically the northern mountains are of immense antiquity, and rocks younger than the coal-measures, apart from the ubiquitous glacial deposits, are everywhere rare except in

13:Evans K-5 (ca. 1940) 1957
ER6 Rural Irish ER6

one see a well-kept or neatly trimmed field-hedge and never a staked and pleached hedgerow to compare with those of the English lowlands. The whole art of hedging is poorly developed, and the craft of laying a hedge almost unknown. The thorns are allowed to grow freely—as though they were the true fairy thorns which must never be damaged—and cut back ruthlessly at long intervals, when the many gaps are stuffed with dead thorns. The truth is that it is the bank rather than the hedge which makes the fence, and the thorns do little more than provide some shelter for livestock. But while the earthen banks grow tall hedges they will not support good hedgerow timber. The few starved ashes, sycamores or stunted beeches compare very unfavourably with the great oaks and elms of the English Midlands. Arthur Young brought his English common sense and prejudices to bear on the subject: 'To permit a hedge to grow too long without cutting not only ruins it for a fence but spoils the trees that are planted with it . . . I never saw a single capital tree growing on these banks.' And consequently, 'the greatest part of the kingdom presents a naked bleak dreary view for want of wood.'[1] Elsewhere he writes, of Mitchelstown in Co. Cork, 'An oak, an ash, or an elm is almost as great a rarity as an olive, an orange or a mulberry.'[2]

The planting of hedges and hedgerow timber had been advocated by improvers since the sixteenth century. The Ordinances for the Government of Ireland (1534) lay down that 'every husbandman having a plough within the English Pale shall set by the year twelve ashes in the ditches and closes of his farm'. The ditch-bank was evidently already a feature of the farms in the Pale, and it is interesting that there, as generally through the east and north of the country, the ash—providing the most useful timber for general farm use—is the favourite hedgerow tree. But it is in the closes (the farmyards) that one sees most trees today, chief among them the sycamore whose dense foliage gives protection from the winds and from the prying eyes of neighbours. Next to the sycamore in popularity, and similarly providing a thick cover, come the beech and the conifers, and it is noteworthy that none of these species is

[1]Arthur Young, *Tour*, 2, part 2, 66
[2]ibid, 2, 272.

13:Evans K-5 (ca. 1940) 1957
ER6 Rural Irish ER6

would have been undertaken so long as supplies of timber were available, though Petty observed that 'the cutting and carriage of turf was easier than that of wood.'[1] We may think of turf as supplementing and then coming to replace wood fuel, though in fact some wood is still very desirable to supplement the slow-burning turf, especially the quick-burning gorse and bog-fir which are the most readily available sources in treeless areas.

It is calculated that at least one fifth of the country is coated with bog, but a small proportion of this could be classed as reclaimed bog. It occurs not only in all the mountain areas but also, and more conspicuously, in the ill-drained hollows of the lowlands where glacial deposits had blocked the natural flow of waters or human occupation had brought about environmental changes. It is estimated that in recent years over 5 million tons of dried domestic fuel have been cut annually, representing a weight as cut of some 40 million tons. At this rate the supply is reckoned to last for 500 years, but this makes no allowance for the increasing exploitation of peat for the thermal generation of electricity and for the extraction of by-products. There is, however, a slow accretion of peat in many areas, though this consists mostly of sphagnum peat and the good-quality fen and forest peats of the deeper bogs are not being replaced. In fact these deeper layers tend to remain untapped either because the water cannot be drained away, or because layers of tree-stumps defy the attacks of both spade and mechanical digger.

The main causative factor in bog-formation is waterlogged soil, which checks the decomposition of vegetable remains. It therefore depends to a considerable extent on climate and on the balance between precipitation and evaporation. It is generally held that past phases of bog-growth can be correlated with periods of climatic deterioration, and horizons which are believed to mark the changed conditions can be traced in most of the deep bogs. In Scandinavia the most important of such 'recurrence horizons' has been dated by pollen-analysts and archaeologists to about 400 B.C.: the stormy sub-Atlantic climate whose beginning is thus chronicled is believed to have improved somewhat early in the Christian era, but to have suffered two further periods of worsening about A.D. 400 and

[1] Sir W. Petty, op. cit., 82.

13:Evans K-5 (ca. 1940) 1957
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137 A.D. 1300. Attempts to extend this chronological scheme to cover Ireland have not been successful, and the current view is that some at least of the recurrence horizons should be attributed to ecologic changes brought about by human action which led to the redistribution of water and the blocking of drainage. Admittedly the basal Boreal peats of lowland bogs, and the Atlantic peats which succeeded them, must have been formed without any appreciable human interference, for in those periods traces of man are either absent or few and limited in distribution, but from sub-Boreal times onwards, after 2500 B.C., we have to reckon with human societies equipped with tools and domestic animals capable of working far-reaching changes in environmental conditions. The blanket bogs which cover the mountain slopes and in the west spread indiscriminately over hundreds of square miles of upland and lowland alike are admittedly associated with areas of heavy precipitation and high humidity, but the significant fact is that some of them can be shown to have been initiated in sub-Boreal times following extensive clearance of the woodlands which previously grew there. Walking over the upland bogs, I have stepped on to the roofing slab of a great stone monument which once stood seven feet clear of the ground: it had been completely engulfed in peat formed since its erection. Study of the bottom layer of this bog showed that it contained pollen grains of cereal type and of weeds of cultivation such as ribwort plantain.[1] Leaching of soils exposed by shallow cultivation and the formation of iron-pan seem to have followed human occupation of the sandy moraines and residual soils to which early man was attracted by their dryness and by the lightness of their forest cover. The extensive areas affected, despite the presumably small population, may be explained if we suppose that cultivation was temporary and that settlements were moved every few years.

These blanket bogs are rarely more than six or eight feet thick and many stretches have been reduced by turf cutting and erosion to a mere skin with occasional residual hags betraying their former depth. The so-called raised bogs of the lowlands, in contrast, are not easily cut-out: they are often very deep,

[1] G. F. Mitchell, *P.R.I.A.*, 53B (1951), 159.

13:Evans K-5 (ca. 1940) 1957
ER6 Rural Irish ER6

averaging some twenty feet, and they have had a far longer life. In their natural condition their surface is slightly convex, and they may come to stand, perversely, above the level of the surrounding countryside, though they began life in ill-drained hollows where reeds grew to make fen-peat. These lower layers tend to be alkaline in nature and when the upper layers are cut away the bogs may be turned into productive cropland if adequate drainage can be provided. Small areas of this type occur to the south of Lough Neagh, but Ireland has nothing to compare with the English fenlands. Yet the Irish bogs take their place in the agricultural economy as summer grazing grounds, formerly for mixed stock and for cattle in particular, latterly mainly for sheep. In the past, too, considerable use was made of buried timber dug from the bogs,[1] of oak for roofing beams and of pine for kindling and resinous 'splits' to give light. The long 'trying iron' with which buried timber was located is shown in Fig. 66, together with the massive 'fir hatchet' and 'fir rooter'.

To the ecologist the bogs provide a unique field of research into the history of the occupation of the country by plants, animals and man. In the waterlogged depths of the peats everything is preserved, even the tiniest seeds and insects. Centuries of successive summers are chronicled in countless pollens of trees and grasses which the botanist can identify and thereby reconstruct the changes of vegetation from prehistoric times down to the recent past. When man appeared on the scene not only did he leave his pathways and possessions in the bogs, but, as we have seen, he was an agent in their growth. His tools of stone and copper, bronze and iron, evolving in that order, are found lying at levels which can be correlated with the vegetation-history by analysing the pollens that cling to them. Thanks to the labours of Knud Jessen and Frank Mitchell we now have an approximate chronological sequence of landscapes and human cultures in Ireland going back several thousand years.

The pollen grains from the lowest layers of the upland bogs include those of shrubs such as hazel, birch, rowan and thorn, as well as, occasionally, those of cereals and the weeds of cultivation. Evidently the clearings soon became threatened with forest and field weeds, and these companions of the earliest

[1] E. E. Evans, *Irish Heritage*, 142; A. T. Lucas, *Béaloideas*, 23, 71–134.

13:Evans K-5 (ca. 1940) 1957
ER6 Rural Irish ER6

●137 314 farmers, both the flowers of the fields and the shrubs of the forest edge, took on a special significance which they have retained in the peasant mind to the present day. There is powerful magic in the flowers of May, in the hazel twig, the fairy birch, the rowan branch and above all in the flowering hawthorn. This most beautiful of trees first became common in the Neolithic period. In a later chapter we shall consider some of the enduring spiritual aspects of man's association with this environment of his own making. At about this time, too, when the Neolithic economy was both absorbing the older population and being supplemented by metal tools, pollen studies reveal a marked decline of the elm tree which has been explained by the use of its bark and branches as cattle fodder. The oak forests, however, persisted in strength, and were presumably treasured for their supply of pig-fattening mast. Alder also was abundant, occupying soils which were too damp to be cultivated.

The onset of the sub-Atlantic climatic deterioration in the last millennium B.C. seems to have accelerated the peat-forming processes. Both oak and elm decline, but the birch tree spreads widely. In County Antrim, for instance, extensive oak forests growing up to heights of 1,000 feet were overwhelmed in the spreading bogs. The pine had become rare by the end of prehistoric times, though it may have lingered into the historic period on sandy eskers and on the dried surfaces of some of the raised bogs. Despite climatic change and human interference, considerable oak and alder forests survived here and there into the seventeenth century, but these last remnants of the Irish forests were almost all destroyed by the military and economic demands of that troubled century. Among the many consequences was the almost universal exploitation of the peat bogs for fuel. In addition great quantities of turf were consumed by the linen bleachers from the late eighteenth century, and kilns for burning lime and bricks and for drying agricultural produce made considerable demands on the bogs. A minor traditional [372] use which may be mentioned in passing was for the preparation of charcoal for smith's work. The peat was charred in pits.

314 786 For all its toil turf-cutting provides a welcome break from the routine of farmwork, a time when friends and neighbours come together away from the familiar surroundings of fields

16:Messenger E-4,5 (1955-1966) 1969 ER6 Rural Irish ER6
(1959-1960) Inis Beag

Climate

821 Whether or not the steamer calls at Inis Beag, especially during the winter months when severe storms are frequent, is of considerable psychological significance. The importance of weather conditions as they impinge, both directly and [182] indirectly, on this tiny island far out in the ocean cannot be overemphasized. Most [521] activities, and not only farming and fishing, are more or less affected by the [576] climate, and the past, present, and future states of the weather figure prominently in conversations among the folk. It is customary for individuals when meeting to talk first of the weather before turning to other matters, and some of the common greetings pertain to immediate conditions: "It is raining.", "It is windy.", or "It is a beautiful day." These are usually the phrases first mastered by non-Gaelic speakers who spend time in Inis Beag, along with the most used greeting—"God bless you." and its reply, "God and Mary bless you."

132 The year around climate of Inis Beag might be labeled cool, humid, rainy, [127] and windy, at least by one living in the Great Lakes region of the United States. A perusal of lighthouse records for the decade 1951 to 1960 revealed a mean temperature of 42 degrees (all figures Fahrenheit) for the winter months, December to March, and 59 degrees for the summer ones, June to September. During that decade, the lowest and highest temperatures recorded in Inis Beag, both during 1955, were 28 and 80 degrees respectively. January was the coldest month, with a mean temperature of 39 degrees, and July was the warmest, with 61 degrees. The island is located in a climatic zone in which the average rainfall is 40 to 50 inches per year; the average number of rain days per year is 225, and the average June sun hours per day is five and a half.

> Westerly winds predominate in Ireland, though naturally a climate experiencing the passage of so many depressions has winds from every quarter at some time during the year . . . Winds of gale force are most frequent in the northwest, where they average 40 per year . . . Most of the gales are from a westerly direction: they are so severe a menace to shipping that many inhabitants of [137] islands and remote coastal districts . . . profit from periodic salvage hauls . . . The absence of trees on the exposed western coasts of Ireland is usually regarded as a direct result of the exposure to westerly winds . . . (Freeman 1960:50–51).

Snow usually falls several times during the winter, but it melts within hours as the temperature seldom fails to climb above freezing on any day. During the months from June to August, the sea and air are often warm enough to encourage 821 "comfortable" swimming by tourists, usually off the strand. The islanders consider May the ideal month so far as climate is concerned, for the weather tends to be cool, dry, and windy; flowers grow in profusion and birds return in great numbers. March weather, which is much colder but also dry and windy, is called "hard."

All of the adults of Inis Beag are amateur weather forecasters; however, [815] several old men are considered to be specialists in the art. Some households possess [207] barometers, and forecasts on the radio are listened to attentively by those who own sets. But, in the main, the folk prefer to make their own prognostications based on traditional signs, most of which are sound meteorologically and the outgrowth of

17: Messenger E-4,5 (1958-1966)1971 ER6 Rural Irish ER6
Inis Beag

the major source of their livelihood; production is mainly for subsistence and is carried on with a simple technology, using the digging stick, spade, and scythe as primary implements; the island folk participate in a money economy, but barter still persists; a low standard of living prevails, and the birth rate is high; the family is of central importance, and marriage figures prominently as a provision of economic welfare; the island is integrated into the county and national governments and is subject to their laws; the people have long been exposed to urban influences and have borrowed cultural forms from other rural areas on the mainland, integrating them into a relatively stable system; and, finally, the experience of living under English rule for centuries has created in the islanders an attitude of dependence on—yet hostility toward—government which continues to this day. The only conditions in Inis Beag which run counter to those found in most other peasant communities are low death and illiteracy rates and bilateral, rather than unilineal, descent (although inheritance is patrilineal).

Inis Beag culture also characterizes people of nearby islands, and the traditions of the several together might be regarded as forming a subculture of the total Irish system. Many island customs are shared with rural peasants on the mainland (where numerous regional subcultures exist), and some are part of a broader European matrix. The island has experienced considerable cultural change since the establishment of the Congested Districts Board (forerunner of the Gaeltacht) in 1891 and the growth of tourism in this century. But conditions there still approximate those which must have prevailed two generations ago, and earlier, throughout this region of peasant Ireland.

Inis Beag has a population of approximately 350 persons living in seventy-one "cottages" distributed among four settlements, called "villages." Bordering a "strand" and a large tract of common land on the northeastern side of the island are a series of limestone terraces, separated by water-bearing shales and faced by small cliffs, on which the villages are situated. Most of the arable land is found on this side, where the shales have been broken down by weathering and alien soils deposited by wind and by ice of the Weichsel glacier. Over many generations, the islanders have deepened these soils and created new soils on rock surfaces by adding seaweed, sand, and human manure. On the southwestern side of Inis Beag, known as the "back of the island," limestone pavements slope rather evenly, almost as the gentle dip of the strata, from the crest of the highest terrace to the sea a mile away. The bared surfaces are intersected in all directions by crevices,

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which contain a large portion of the natural flora—herbs and shrubs—of the island. Stone fences delimit many hundreds of plots which compose most of the two-square-mile land surface of Inis Beag.

The island boasts a post office with radio-telephone facilities, a "national school" in which three teachers instruct ninety pupils in the seven "standards," two provision shops with attached "pubs," a former coast guard station now housing the nurse and a knitting industry which employs local girls, a lighthouse, and a chapel served by a curate who resides nearby. Inis Beag lacks electricity and running water, and the only vehicles are several ass-drawn carts which are able to travel the narrow, fence-bordered trails. A small "steamer" carrying supplies, passengers, and mail to and from a mainland port visits the island at least once each week. That Inis Beag has experienced far less cultural change than other island communities of Ireland is largely due to the fact that, in absence of a deep water quay, the steamer has had to stand off the strand and be met by "canoes." Most of the tourists who come to the island stay only for the hours that the steamer is anchored and go ashore mainly for the thrill of riding in the canoes, which the island men row with consummate skill. Insofar as I can discover, the inhabitants of Inis Beag are less prone to visit the mainland than are the peoples of other Irish islands.

INIS BEAG
HISTORY AND CULTURE[2]

The prehistory and history of Inis Beag are recorded dramatically in a multitude of monuments and artifacts of stone and metal, including Neolithic axe-heads and kitchen middens, Copper-Bronze Age gallery grave tombs and burial mounds of earth and stone, an Iron Age promontory fort, and medieval Christian monasteries, churches, cemeteries, stone houses, and a sacred well, as well as a three-story tower house built by the political overlords of the island. Irish nativists claim that the contemporary folk are lineal descendants of ancient, once civilized

[2] The culture described herein is that of 1959–1960 and excludes important changes which have occurred since then, such as those resulting from the introduction of television, a summer language school for pupils from the mainland, and free secondary education.